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Abstract of a Survey

—OF—

The Baltimore Public Schools

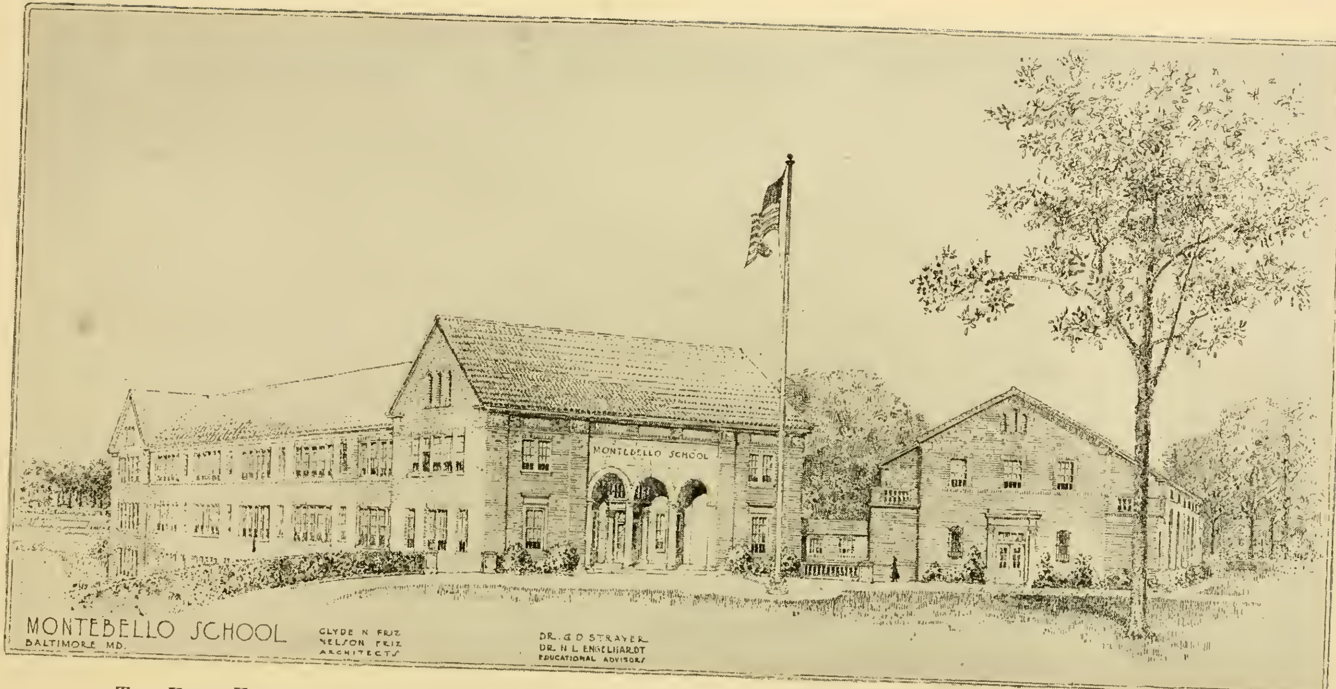
1920-1921

GEORGE D. STRAYER, Director

PUBLISHED BY

BOARD OF SCHOOL COMMISSIONERS

BALTIMORE, MARYLAND



THE FIRST ELEMENTARY SCHOOL BUILDING TO BE ERECTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE BALTIMORE SCHOOL BUILDING SURVEY.

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INTRODUCTORY STATEMENT

By the Director of the Survey

The complete report of the survey of the Baltimore Public Schools will be issued in three volumes. In this complete form of publication will be found all of the data which were used as a basis for arriving at conclusions, and for the making of recommendations with regard to the development of the school system.

This abstract of the survey presents the facts in summary tables and statements, the findings of the survey based upon these facts, the recommendations which were made, together with a statement of the progress that has been made during the conduct of the survey and since its completion. The recommendations of the survey, as presented in this brief form, are identical with those which appear in the more complete publication. The factual basis, upon which recommendations are made, is given in so far as was possible, even though detailed tables or descriptions are omitted.

It is of primary importance that those who are interested in the development of Baltimore's public school system know that the survey staff worked in co-operation with the Superintendent of Schools and his staff, and with the Board of School Commissioners at every stage of the survey, and that definite progress was made by virtue of action taken by the Board of School Commissioners, and by the Superintendent of Schools during the progress of the inquiry.

The only justification for a survey is to be found in the results achieved. It is not often that a survey staff has had the satisfaction that has come to those who have worked in Baltimore in seeing the development and improvement of the public schools taking place in so large a degree or in so many important particulars during the progress of the inquiry as has been the case in Baltimore.

GEORGE D. STRAYER.

LETTER FROM SUPERINTENDENT OF SCHOOLS

Department of Education,

Baltimore, Md., May 31, 1921.

Dr. George D. Strayer,

Director, Baltimore School Survey.

My Dear Doctor Strayer:—

With the completed manuscript of your Survey of the Public School System of Baltimore in our hands, I desire to congratulate you upon having finished so extensive and so admirable a piece of work ahead of the date you set. I want also to thank you on behalf of the Board of School Commissioners, my colleagues on the executive staff, and our whole corps of school principals and teachers, for the personal interest, the skillful direction, and the detailed attention you have given to every phase of this large enterprise.

When the Committee of the School Board called upon me last summer in reference to the superintendency of schools, I secured from them assurance that the Board would take steps to have a school survey inaugurated at the very beginning of the new school year, so as to get the completed survey report as early as possible in 1921. My attitude was to welcome heartily a thorough survey of the Baltimore school system as a first and a most important move on the part of the reorganized Board of School Commissioners. My own experience with previous school surveys had taught me that a school survey properly conducted by a competent and impartial director, not connected with the school system being surveyed, could bring to that system a clearness of vision as to the existing situation, and a soundness of judgment as to recommendations for the future, that would be of tremendous and lasting value to the city under survey.

As this survey has progressed, all of my hopeful anticipations regarding it have been fully realized. The complete report presents an array of facts about the Baltimore school system amazingly comprehensive for the comparatively short space of time consumed in doing the necessary field work, and in systematizing and analyzing the large volume of data collected; and the professional judgments expressed and the definite recommendations offered will furnish the basis for a long-range program of development.

Very truly yours,

HENRY S. WEST,

Superintendent of Public Instruction.

THE REPORT OF THE REVIEWING COMMITTEE
BALTIMORE SCHOOL SURVEY

The Reviewing Committee has visited forty schools including all types, elementary, junior and senior high, in order personally to become acquainted with the physical plant and the general atmosphere of the schools.

The Committee has studied the summaries of the several reports of this survey and the recommendations of the Survey Commission. This study has been supplemented by such conferences with school authorities as the limited time available has made possible. The Reviewing Committee has made recommendations which are being incorporated in the final report of the Survey Commission.

The Reviewing Committee is impressed by the comprehensive and scientific study of actual conditions in the Baltimore schools made by the Survey Commission. The facts resulting from this study, and the form in which they have been organized, serve as an invaluable basis for the future improvement of the Baltimore schools.

It is the unanimous judgment of the Reviewing Committee that the findings of the Survey Commission as to actual conditions and needs for improvement are justified by the evidence presented.

Specific recommendations concerning educational policies always fall within one or the other of two categories:

1. Those which are generally accepted by educational authorities and which are being increasingly exemplified in the better city school systems.
2. Those which involve practices in which good school systems vary and concerning which no general agreement has as yet been reached by educational authorities.

Of the policies generally accepted by educational authorities, the following are a few typical illustrations of those recommended by the Survey Commission and concurred in by the Reviewing Committee:

(a) The Superintendent of Schools should be the chief executive officer of the Board of School Commissioners. He should have associated with him an adequate staff of competent administrative and supervisory officers directly responsible to him.

(b) The appointment by the Board of School Commissioners of all members of the teaching and supervisory staff should be made only upon the recommendation of the Superintendent of Schools.

(c) A compulsory attendance service and a permanent continuing census organization should be developed which will insure to every child the education which the law seeks to guarantee.

(d) The physical facilities should be maintained at such a standard as to provide adequately for wholesome play and to insure the safety, the comfort, the health and proper physical development of school children.

(e) In the expenditure of all funds appropriated for public education the Board of School Commissioners, subject to proper audit, should have authority commensurate with the responsibility placed upon it by law.

(f) A comprehensive system of schools should include such major units of school organization as the following:

Kindergartens as an essential part of all elementary schools.

Elementary schools — grades 1 to 6 inclusive — in which proper provision is made to meet the common needs of all normal children of elementary school age, with appropriate provisions for other children of varying abilities and needs.

Junior and senior high schools—grades 7 to 12 inclusive—with provision for educational opportunities sufficiently broad in scope to meet the major differentiated needs of pupils of high school age and of the varying forms of service which the community requires. These schools should be so organized as to secure coordination of aim and procedure.

Summer schools affording appropriate opportunities during the summer vacation.

Continuation schools for boys and girls of high school age who have withdrawn from the full-time day schools.

Baltimore has established to some extent these commonly accepted types of school organization. The needs as yet inadequately met are:

The extension and development of kindergartens and junior high schools; classes for exceptional children, such as the gifted, the backward, the tubercular, and the crippled; a closer articulation between junior and senior high schools; and a more complete coordination of the senior high schools. Continuation schools should be established at the earliest opportunity.

As types of policies concerning which good authorities differ and in which the practices of the best school systems vary may be mentioned the following illustrations from the report of the Survey Commission:

(a) In the development of an adequate program of supervision of instruction in the elementary school two policies are common: (1) Supervision by building principals; (2) supervision by officers attached to the central administrative office and responsible for work throughout the system.

(b) In the supervision of instruction in junior and senior high schools two policies are common: (1) Supervision by heads of departments in individual schools; (2) special subject supervisors attached to the central administrative office and responsible for supervision in all secondary schools.

(c) Two methods are commonly employed in the determination of the salary schedule: (1) The first method involves the classification of teachers according to the quality of their service in the schools; (2) the second method provides for the classification of teachers according to their length of service and the qualifications indicated by the amount and character of their training.

(d) Two policies are common in providing for dental service : (1) The establishment of clinics in each school or section of the city; (2) the establishment of a single centralized clinic serving the entire school system.

This distinction between generally accepted policies and the policies as yet not determined and attested by practice is necessarily involved in the recommendations of the Survey Commission. In the judgment of the Reviewing Committee, where policies are involved belonging to the category of accepted good practice, the Survey Commission has in each case made recommendations, the validity of which is recognized. It is also their judgment that the Survey Commission has properly recognized those cases where specific recommendations cannot be made with assurance and has properly pointed out the relative advantages and disadvantages of differing policies in the light of local conditions.

The Committee takes pleasure in noting that the Board of School Commissioners, the Superintendent of Schools and his assistant superintendents, the school principals, and teachers have heartily cooperated with the Director and his staff in their conduct of the survey, and that the Board of School Commissioners has already adopted several important recommendations that have been made.

It is the unanimous opinion of the Reviewing Committee that the final value to the city of Baltimore of this survey will depend chiefly upon the provisions which are made by the municipal and school authorities for the successful and progressive carrying out of the very comprehensive educational program which the survey has so carefully outlined.

ABRAHAM FLEXNER,
ELWOOD P. CUBBERLEY,
FRANK W. BALLOU,
ALEXANDER INGLIS,
HERBERT S. WEET,
JOHN W. WITHERS.

PROGRESS IN THE BALTIMORE SCHOOL SYSTEM DURING AND SINCE THE COMPLETION OF THE SURVEY

I. **Administration**—The Superintendent of Schools has, by action of the present Board of School Commissioners, become the chief executive officer of the school system. All appointments to the teaching and supervisory staff are made upon his nomination. The establishment of this practice, as a matter of law, awaits the action of the Legislature.

Assistant Superintendents in charge of junior and senior high schools, of the intermediate grades, and of the primary grades, have been appointed. A Director of Americanization has been secured.

A Committee of the Board of School Commissioners has in hand the question of reorganization of the business offices of the Board. It is confidently expected that provision will be made in the next annual budget for a competent person to head the division of business administration of the school system.

The organization of the school system, upon a plan of a six-year elementary school, three-year junior high school, and three-year senior high school, has been adopted. A parental school for colored boys has been established. Steps have been taken to secure a director for an enlarged Bureau of Research and Statistics.

II. **School Buildings and School Building Program**—Seven million dollars have been made available for school buildings, one million for emergency repairs, and six millions for new buildings. Emergency repairs are already completed. New buildings are being planned and sites providing ample playground space have been and are being secured. The building program is being developed in accordance with the recommendations of the survey. It is suggested that the Legislature will be asked to authorize additional loans for school buildings at its next session.

III. **Teaching Staff**—Substantial increases in salaries were granted to all teachers for the current year.

IV. **Classification and Progress of Children**—The Assistant Superintendents are making a careful study of the classification and progress of children throughout the school system. Children are being classified on the basis of ability to a greater extent than heretofore.

V. **Medical Inspection and Physical Education**—A Director of Physical Education has been appointed. An advisory director, with large experience in the work of physical education and recreation, has been appointed. A larger degree of responsibility for health service has been undertaken by the director and his staff in junior and senior high schools.

VI. **Secondary Schools**—A complete articulation between junior and senior high schools has been effected. The repeating in senior high schools of courses taken in junior high schools no longer prevails. Committees of principals, supervisors, and teachers have prepared tentative courses of study for junior high schools. More opportunity is being afforded in the junior high school for work in industrial arts and home economics. The junior high schools have been enlarged by removing from the buildings, in which they are housed, elementary school classes. Further development of the secondary schools awaits the completion of the building program.

VII. **The Elementary School Curriculum** — Tentative courses of study have been prepared by Committees and are being tried out in the elementary schools. Committees will continue to work on the development of these courses of study.

VIII. **Kindergartens** — Twenty additional kindergartens have been opened. The program of work is being developed in accordance with the recommendations of the survey.

IX. **Home Economics**—A Supervisor of Home Economics has been appointed. Provision has been made for the utilization of equipment formerly lying idle. As noted above, a larger offering in this field has been provided in the junior high schools. Courses of study have been revised in accordance with the recommendations of the survey.

X. **Vocational Education**—A plan of organization for vocational education, providing for a director of this department, together with three heads of the divisions of industrial education, commercial education, and home economics, has been adopted.

Two of the heads of divisions are already at work. Steps have been taken toward securing the third division head.

XI. **Further Progress**—Further progress in the development of the school system is dependent upon legislative action which may be secured, and upon the money provided in the next annual budget.

ADMINISTRATION OF SCHOOLS

The control of the public school system in Baltimore is in the last analysis vested in a Board of Estimates, composed of the Mayor, City Solicitor, Comptroller, President of the Second Branch of the City Council, and President of the Board of Public Improvements, and in the City Council. The Charter provides that the head of the Department of Education shall consist of a Board of School Commissioners. It is equally true that by Charter provision the Board of School Commissioners must look to the Board of Estimates and to the City Council not only for the moneys which are to be used for school purposes, but that they must submit a budget in great detail from which they may not depart in the administration of the schools during the year for which the money is granted.

The Board of School Commissioners does not have control of the erection of new buildings, nor of the repair of the buildings now in use. The City Inspector of Buildings is the responsible authority even though it is provided that "the instructions of the Board of School Commissioners shall be regarded by the Inspector of Buildings in the preparation of his plans, and no plans shall be finally adopted without the concurrence of said Board." The intent of the charter as interpreted by the City Solicitors makes it very clear that the Board of School Commissioners is a distinctly subordinate department in the city government.

In actual practice the Board of School Commissioners is required to appear before the Board of Estimates in order to make any change in the salary paid to an individual whose salary has been fixed by the ordinance of estimate even though the Board does not seek to spend any more money than that provided in the budget for the general purpose or function involved. Even where money has been appropriated for a particular purpose the Board of Estimates feels that it has the authority to pass upon the expenditure of the money until the sum involved shall have been completely exhausted.

The members of the Survey Commission believe that the people of Baltimore look to the Board of School Commissioners for the development of the public school system. They are convinced that the provisions of the charter as interpreted by City Solicitors, and as operative at the present time, interfere with the efficiency of the Board of School Commissioners in fulfilling their function. It is recommended that the Board of School Commissioners be given a larger degree of control over the money made available for the public schools of the city.

In many American cities the board of education levies taxes, and enjoys complete control of all moneys made available for the support of the public schools. The boards of education in St. Louis, Kansas City, Philadelphia, Indianapolis, Pittsburgh, Boston, Chicago, and many other cities have, within certain limits determined by law, the right to levy taxes or to submit budgets which are mandatory to the tax levying authority, and in all cases have complete control of the funds which are provided in support of the public school system.

It is recommended that in Baltimore such amendments to the charter be made as will make it possible for the Board of School Commissioners to submit a budget classified under the following heads only: (1) Administration and General Control; (2) Instruction; (3) Text-books and Supplies; (4) Maintenance of the Plant; (5) Operation of the Plant; (6) Auxiliary Agencies; (7) Capital Outlay. It is proposed that they present all the data necessary to support their estimates of the cost of maintaining the public school system. After the money has been allowed by the Board of Estimates and voted by the City Council, it is proposed that within the classifications mentioned above the Board of School Commissioners be given complete control of the funds so voted.

The changes in the charter advocated above and intended to provide for a larger degree of control by the Board of School Commissioners are in accord with the prevailing practice in American cities and cannot be thought of as giving unusual power to the school authorities. If the recommendation were for complete fiscal independence of the Board of School Commissioners, it would be in complete accord with the practice of approximately half of our American cities, and would receive the cordial

support of the leading authorities on educational administration.

After the Mayor has appointed a Board of School Commissioners "from among those he deems most capable of promoting the interests of public education by reason of their intelligence, character, education, or business habits," (Sec. 99 City Charter, 1898) surely he and his colleagues of the Board of Estimates should be willing to give them such authority as is provided in the recommendation for the expenditure of the funds made available.

In the majority of American cities the Board of Education has complete responsibility over the selection of sites, erection of buildings, repairs to buildings, the purchasing of supplies and equipment, and other business affairs. From such inquiry as has been made in Baltimore there appears to be no apparent gain in placing the purchasing of supplies under the control of the Board of Awards and the City Purchasing Agent. The care of the school plant and the erection of new buildings in a city the size of Baltimore is a job big enough in itself to justify the employing of a competent person for this service. If the type of business organization recommended in the survey is to be developed under the general supervision of an executive officer of the Board of School Commissioners, there can be little doubt but that a higher degree of efficiency will be brought about. The present situation makes for delay and dissatisfaction, for an increase in costs through duplicating authorities involving the employment of additional personnel, and fails to give to the Board of School Commissioners authority commensurate with their responsibility.

The Board of School Commissioners should appoint an executive directly responsible to the Superintendent of Schools whose duty it shall be to assume general supervisory responsibility for the installation of an adequate system of cost accounting, the continued study of the need for repairs to buildings and equipment, the careful and detailed study of building needs, and the most advantageous location for new buildings as determined by increases and shifts in population, and the standardization of supplies and equipment to the end that the business administration of the schools be developed in such manner as to make for a maximum of economy and efficiency.

The desirability of giving to the Board of School Commissioners rather than to the Board of Health the responsibility for the physical examination and health service provided for school children is generally recognized throughout the United States. Over three-fourths of the cities supporting medical inspection and health service have given this responsibility to the Board of Education. Among the cities in which the work is organized under this form of control are St. Louis, Cleveland, Atlanta, Kansas City, Dayton, Minneapolis, Boston, Jersey City, Milwaukee, Seattle, Los Angeles, Newark, New Orleans, and Denver. It is urgently recommended that the Board of School Commissioners be given this responsibility in the city of Baltimore.

In advocating that the Board of School Commissioners be given larger responsibility for the conduct of the school system it is recognized that the success of their administration depends upon the organization and personnel of the administrative staff employed by them. It is clear that if efficient administration of schools is to be secured, the Board of School Commissioners must recognize the Superintendent of Schools as their chief administrative officer. All other executives must be responsible to him, and should be elected by the Board of School Commissioners upon his nomination.

In an opinion of the City Solicitor, dated February 24, 1921, it appears that the Superintendent of Schools does not now legally enjoy the right of nominating all members of the administrative, supervisory, and teaching staff.

In Baltimore at the present time, the Superintendent of Schools is recognized as the chief executive officer of the Board of School Commissioners. There would be a distinct advantage in legalizing this relationship in order to guarantee the continuance of the present policy. There are at this time four assistant superintendents. It will be necessary to add to this number. If Baltimore is to develop an adequate system of vocational education, a director or assistant superintendent directly responsible to the Superintendent of Schools must be provided. If the health service and physical education were organized under a single head, as is the case in the more progressive American cities, a

director or assistant superintendent would need to be provided for this field.

The development of an adequate system of supervision for the schools of Baltimore involves the further question of supervision of the colored schools. The colored people of Baltimore have a separate community life in their homes, churches, and schools. A supervisor of colored schools, directly responsible to the Superintendent of Schools, would have a type of contact with this group in the community that is not possible for any one of another race. If a supervisor thoroughly acquainted with the needs of this group and well trained in the field of school supervision were selected, it is believed that much improvement in the organization and work of the colored schools might be effected.

THE BUREAU OF RESEARCH AND STATISTICS

For a number of years Baltimore has gathered statistics covering enrollment, attendance, withdrawal from school, promotions, failures, and other elements involved in the classification and progress of school children. These data have been carefully recorded by the school principals for the Bureau of Statistics and have been assembled with great care and considerable expense in the annual reports of the Board of School Commissioners.

Not only should the Bureau of Research and Statstics be responsible for the collection and interpretation of data in the field of classification and progress of children, but a similar service should be rendered by this bureau to all the other departments of the city school system. This bureau should be the clearing house for all investigations that are being made in the school system. In fact, it should operate as the bureau for continuing the survey work which has been begun by this commission, so that there may be developed a continuous survey of the school system of the city.

Most laborious methods are at present employed in the office compilation of results. Computing and tabulating machines and devices should be provided this department so that its work may be done most expeditiously. The money spent in proper office equipment and adequate clerical assistance in this department can be considered as one of the best investments which it

is within the power of the Board of School Commissioners to make. In the last analysis this department provides the measures of success of all other departments and hence its importance cannot be over-estimated. The fact that such a department is assuming a place of increasing importance in the large majority of progressive school systems in the United States is one reaon why Baltimore should provide for its development so as to secure the highest efficiency.

THE SCHOOL BUILDING SURVEY AND THE SCHOOL BUILDING PROGRAM

The success or failure of the educational program in any public school system depends in large measure upon the type and adequacy of the school housing provisions. In making the school building survey, the 150 public school buildings of Baltimore were scored by means of a scorecard which has been utilized in scoring school buildings in many cities in the United States. A score of 900 to 1000 points indicates a highly satisfactory degree of construction and equipment. Where school buildings have scored 400 points or less, experience has dictated to the Survey Commission that abandonment of such buildings for school purposes is the only justifiable course. Such buildings lack almost entirely the provisions needed for the health, safety, and education of the children.

Only 67 of the 140 elementary school buildings in Baltimore were scored above 400 points. Fifty-two per cent. of the elementary school buildings have been scored by the Survey Commission as below 400 points on this 1000 point scorecard. Some of the reasons for the low scores on this very large number of buildings are: the lack of playgrounds; the non-fireproof nature of many buildings; the entire absence of fire-escapes on certain buildings and the wooden fire-escapes on other buildings; heating plants and fuel bins unprotected from the rest of the school building; glass partitions between classrooms and corridors, offering no protection against fire; inadequate provisions for natural and artificial lighting; the very insanitary outhouses of many schools and the poorly maintained, inadequately equipped and miserably lighted basement toilets of other schools; and the

lack of such rooms as auditoriums, gymnasiums, manual training rooms, domestic science rooms, and other special activity rooms which are needed for the development of a modern school program.

In Baltimore 57 per cent. of the children of school enrollment have playground space provided for them of 15 square feet or less; 85 per cent. of Baltimore school children have playground space provided for them of 30 square feet or less. The standard of 100 square feet of play space per child shows to what degree Baltimore has failed to provide play space. Not only is play space lacking to a great degree in the Baltimore schools, but almost no playground apparatus has been installed on the playgrounds.

In addition to the large number of inadequate, poorly planned, and poorly equipped school buildings, 4500 children are being housed in makeshift annexes, such as stores, churches, and the like; 4000 in portables, which, in some instances, cover most of the former playgrounds, and 2500 in classrooms constructed in corridors, cloak-rooms, teachers' rooms and auditoriums, where the handicaps of lighting, seating and other equipment seriously affect their school work. Five thousand school children on half time in 32 schools and 2800 school children on short time in 18 schools, together with the children housed in temporary structures, make a total of 13,000 children for whom better provisions must be made, in addition to those children who are housed in school buildings which have been scored below 400 points.

Heating and Ventilating

Fifty-two school buildings are heated with hot air furnaces. Thirty school buildings in Baltimore are still being heated with stoves in the classrooms. These undesirable and inadequate systems of heating school buildings have long been replaced in progressive cities by a system of heating and ventilation which safeguards the health and comfort of the children.

Although in a large degree the school buildings of Baltimore are non-fireproof, fire-escapes are lacking on 103 buildings, while wooden fire-escapes have been installed on 38 buildings. The standard enclosed stair-well has only been made a part of two school buildings and the steel fire escape has only been provided on 5 of the 150 school buildings. An extensive program for the removal of fire hazards adopted by the Board of School

Commissioners on the recommendation of the School Survey Commission is already under way.

Ninety-five per cent. of the Baltimore schools were rated less than 50 per cent. efficient with respect to provisions for drinking and washing. In 16 of the Baltimore schools there is one drinking fountain for every 150 to 200 pupils. In 23 of the schools there is one drinking fountain for every 200 to 400 children. Eleven schools have no drinking fountain provisions. In these groups children are practically being denied the opportunity for securing a drink of water. In the planning of Baltimore schools, little consideration was given the need for wash bowls, so that children might be taught cleanliness. Twenty-eight school buildings have no wash bowl equipment whatsoever, while in 50 schools, the provision is one wash bowl for every 200 to 1200 children. Thousands of children are denied the privilege of keeping their hands clean.

The toilet systems of 76 per cent. of the Baltimore schools are rated at less than 50 per cent. adequate. Insanitary outhouses, dry latrines and water closets with the most primitive equipment that are now a part of the equipment of the Baltimore schools are included in the program for replacements which has been sanctioned by the Board of School Commissioners on the recommendation of the Survey Commission.

Fifty-seven per cent. of the elementary classrooms for white children are below the standard area per child of pupil capacity and in 65 per cent. of the classrooms for white children the standard of 200 cubic feet of air space per child is not met. The condition in the elementary schools for colored children is even worse.

The standards for natural illumination require that the glass area of classrooms shall be one-fourth to one-fifth of the floor area; that no direct glare should be thrown on desks; and that no children should be compelled to look into the outside light. Approximately 75 per cent. of the elementary classrooms are below the standard ratio of window area to floor area. In approximately 40 per cent. of the elementary classrooms the window placement is below standard. In spite of the defects in natural lighting, 924 classrooms in Baltimore have no artificial light connections. In 367 classrooms the flickering, open-flame gas jet provides the artificial light, and in 735 classrooms electric light-

ing provisions have been made, which, however, in most cases, are far below the standard. Photometric measurements made at random show many cases where only one foot candle of light was available for children at their desks, instead of the requisite six foot candles.

Approximately 57 per cent. of all the blackboards in the Baltimore classrooms are too high to meet the needs of the children, and only four pupils out of every hundred sit in seats that may be adjusted to their heights. Half of the classrooms for elementary children are equipped with 47 seats or more. There are 66 elementary classrooms in Baltimore which are provided with 60 seats or more. Very few school teachers can be expcted to do their best work with more than 40 children in the class.

Adequate lunch-rooms, auditoriums, play-rooms, libraries, nurses' rooms, principal's offices, teachers' rooms, and other special service rooms are lacking to an amazing degree throughout the Baltimore school system.

The School Building Program

In order to develop a school plant which will always meet the educational needs of the city's children, a continuous school building program study must be maintained. Buildings should be located only after a careful analysis of population growth and population needs. The duplication of small plants, as has prevailed in the past, should not be countenanced. School sites should be chosen with full regard to future availability and in advance of building needs, so that they may be secured at the lowest possible costs. The most desirable classification of children requires that school buildings of 24 classrooms and more be planned, and that the special room facilities demanded by the modern courses of study be provided. The following sources of data were utilized by the survey Commission for the voluminous and detailed population study report submitted:

1. The Chesapeake and Potomac Telephone Company's census of population growth.
2. The police census of voters for the period 1910-20, for the purpose of discovering residential tendencies.

3. The school enrollment figures distributed by school districts for the past ten years, in order to discover the child growth by sections of the city.
4. The police census of school children for the purpose of determining the ratio between the attendance at public schools and the attendance at non-public schools.
5. The Federal Census Enumeration District data, showing the population growth over the past two decades.

It is estimated that approximately 25,000 white children will be added to the public school enrollment during the decade 1920-1930, and that approximately 2300 colored children will be added during this same period. The buildings for these children should be ready when they begin to attend school.

The type of educational organization which has been sanctioned by the Board of Education is the 6-3-3 plan, i. e., six years in the elementary school, three years of junior high school, and three years of senior high school. The development of this plan cannot proceed advantageously where there are too many small buildings housing less than 500 or 600 children.

The relationship between the three groups of the 6-3-3 plan has been considered over a period of years, in order to ascertain what percentage of the expected increase in enrollment will fall in the lower six grades or in grades 7 to 9, or in grades 10 to 12. The ratio between these three groups for the past three years has averaged 79.7 per cent. of total school population in grades kindergarten to 6, 15.7 per cent. in grades 7 to 9, and 4.6 per cent. in grades 10 to 12. On the basis of these figures, estimates for increased enrollment in the elementary school have been made for each of the wards. From these estimates, the new elementary school building program has been proposed. This problem has been similarly treated for both white and colored children.

In determining the location of new junior high schools, the city has been divided geographically into six sections and the junior high school population for these six sections estimated for the present period. The growth of the population for the next decade has also been estimated for these sections. Dot map distributions have been made of the present residences of all students attending all of the high schools in the city. These maps, together with the estimated increase in high school popu-

lation of various wards, have formed the basis for the recommendation covering the location of new high schools.

Summary

The recommendations include the replacement of 68 school buildings within the next 15-year period, 50 of which are to be abandoned and replaced as soon as possible. The program for replacement follows:

PROGRAM FOR THE REPLACEMENT OF INADEQUATE SCHOOL FACILITIES FOR WHICH SUBSTITUTION SHOULD BE MADE AS EARLY AS POSSIBLE IN THE BUILDING PROGRAM

Enrollment Figures of February, 1921

Number of white children for whom replacement should be made within the 1914 city limits	14,623	
Number of white children for whom replacement should be made within the 1920 annex	3,484	
Total number of white children for whom replacement should be made as early as possible		18,107
Number of colored children for whom replacement should be made within the 1914 city limits	4,872	
Number of colored children for whom replacement should be made within the 1920 annex	262	
Total number of colored children for whom replacement should be made as early as possible		5,134
Grand Total		23,241

The present inadequate buildings, together with their sites, may be sold in a number of instances. In some cases the sites will be retained and extended, and adequate modern buildings be built upon them.

The cost for school buildings on unit bases have been slowly returning to the 1914 figures. The Survey Commission estimates that a cost figure of approximately $400 per child may with fairness be used as a basis. The total cost program for the decade 1920-1930 is therefore as follows:

THE COST OF THE TOTAL SCHOOL BUILDING PROGRAM FOR THE DECADE 1920-1930

The cost of immediate replacement program, 23,241 children, at $400	$ 9,296,400

The cost of the five-year limit replacement program, 6,433 children, at $400	2,573,200
Increase in population for the decade 1920-1930, 28,000 children, at $400	11,200,000
Total cost	$23,069,600

THE TEACHERS OF BALTIMORE

Baltimore employs 2586 teachers in its public schools. The number has been increased by 646 during the six-year period, 1915-1921—an average annual increase of more than 100.

The withdrawals from the service just prior to the war averaged about seventy each year. In 1917-18, however, the withdrawals were nearly doubled, and in the following year they were three times the pre-war average. Last year 183 teachers from the regular staff left the service, or more than twice the pre-war average.

By computing the growth of the system for each year as measured by the number of additional teachers required and by adding the number of teachers withdrawing from the service, the number of recruits that have been needed each year is determined. This should be compared with the number of training school graduates.

	Increase in Number Teachers Employed	Deaths and Resignations*	Rceruits Needed	Number of Training School Graduates
1915-16	51	71	122	...
1916-17	18	74	92	106
1917-18	10	132	142	169
1918-19	315	212	527	140
June, 1919-Jan., 1921	262	183	314	80

* Not including substitutes.

The facts regarding the shortage of teachers deserve the most serious consideration. The Baltimore City Training School, which for nearly twenty years has been the chief source of supply for the white elementary schools, graduated 136 students in 1917; in 1920 it graduated 29. The Colored Training School, which graduated 33 students in 1917, graduated 25 in 1920. Thus, during the years when the school system has been expanding the most rapidly and when withdrawals from the service have

been most numerous, the supply of trained teachers has steadily dwindled.

Nor do these facts tell the whole story. The City Training School apparently enrolled at one time a fair proportion of the abler graduates of the Eastern and Western High Schools. Beginning as far back as 1915, the proportion of these abler students entering the Training School began to diminish, and the proportion drawn from the lower scholarship ranks began to increase. There is excellent material in every class of the Training School. However, the general quality of the entering students has fallen off during the past six years. Relatively few young women of marked ability are at the present time looking forward to the type of teaching service for which the City Training School prepares.

The Salary Question

The unattractiveness of public school teaching is to be attributed in large part to the small financial rewards that it offers as compared with other occupations. The war and its aftermath of high prices are only the immediate cause of the condition that the schools are facing today. For a decade or more before the war, it was clearly apparent that the rewards of teaching were not increasing in proportion to the rewards afforded in other callings. Openings for women in industry, in commerce, and in professions other than teaching were rapidly multiplied; and thousands of high school graduates, who in former years would have entered the teaching service, were attracted into these new fields. The war consequently only intensified a situation that was already becoming a serious menace to the welfare and progress of public education.

The unsatisfactory financial status of the teacher has found expression not only in resignations from the teaching service and in the discouragement of otherwise available candidates, but also in the spirit of unrest on the part of the teachers who, in spite of the meager rewards, have remained in the service either because they have conscientiously believed that they should not desert it in a crisis, or because they have reached an age when a change of occupation is not something to be considered lightly.

It is clear that if teaching is to attract the number and qual-

ity of recruits that it needs, it must offer larger financial inducements. The significant facts affecting salaries are as follows:

1. Teachers' salaries should be based primarily on the needs of those who remain permanently in the service rather than on the needs of the younger group, many of whom will teach but a short time.

2. Mature and permanent teachers form the backbone of the public school service in all of our city school systems, including Baltimore.

3. A teacher's salary schedule should recognize the fact that mature and permanent teachers, whether man or woman, whether married or single, frequently, if not generally, have persons beside themselves to support.

4. A salary schedule must provide for all teachers not only a living wage (together with a margin for the support of dependents), but also a saving wage.

5. Salaries must be sufficient to enable teachers to live without having to undertake outside work, especially during the school year.

The savings of Baltimore teachers under the present schedule of salaries, as nearly as we can determine from the replies to inquiries, are not large. Out of 637 white elementary teachers reporting, 213 or 33.3 per cent. carry no insurance. Of the 424 who report that they pay insurance premiums, one-half expend $25 or less for this purpose each year.

Of 1132 white elementary teachers replying to the question on pensions, 863, or 76.2 per cent., report savings in the form of contributions to the pension fund. The median amount thus contributed is $15 annually.

As to savings other than insurance and pension payments, the showing is still more depressing. The median amount saved by 321 white elementary teachers reporting on this question is $50. For extraordinary expenses, due to illness or accident, the accumulations of even eight or ten years at this rate would be a very narrow margin. The group is obviously small, but there is no reason to believe that it is not typical of the white elementary teachers as a whole.

From the preceding discussion it is clear that, if the teaching personnel is to be kept up to its pre-war standards, financial rewards must be provided in excess even of the recent increases.

Elements of Strength in the Present Teaching Personnel

1. The teachers of Baltimore come predominantly from native American stock.

2. The teachers of Baltimore constitute an unusually stable and permanent group.

3. A substantial majority of the teachers of Baltimore are serious professional workers.

This fact is substantiated both by the replies to a questionnaire and by the testimony of those who have talked with the teachers and watched them at their work.

If the attributes of the teaching personnel above discussed constitute positive assets to the system, it follows that plans for future development should aim to capitalize and conserve these advantages. This means that teachers should continue to be drawn from the economic and social groups that have heretofore supplied them; but it should also mean that the service should aim to select from the highest levels of ability that these groups represent.

It goes without saying that the basis of an effective morale which the service now possesses in the whole-hearted devotion of the majority of the teachers should be sedulously safeguarded and strengthened.

The Classifications and Progress of School Children

During the last twenty years the school enrollment in Baltimore has decreased from 12.7 per cent. of the total population to 11.5 per cent. in 1920. There is a very heavy elimination of over-age and retarded pupils after the thirteenth year and particularly during the fourteenth year.

In the group which is three or more years over age there were in 1920, 1342 white children (2 per cent. of net roll) and 1062 colored children (9.3 per cent. of net roll) who were in the regular classrooms and should be cared for in special and ungraded rooms. This number in addition to the number already cared for in ungraded rooms would make about 3000 children to be taught in ungraded rooms in Baltimore. St. Louis with a larger enrollment has only one-fourth as many children in this group in the regular grades. In Baltimore there has been practically no change since 1913. There has been small change in the accelerated group, but an increase of 7 per cent. in the normal group a similar decrease in the retarded group for both white and colored children during the period 1914-1920.

The group "3 or more years retarded" is largest in the fourth and fifth grades for white children and in the third and fourth grades for colored children. Boys practically always have a larger per cent. retarded than girls.

Twenty per cent. of the total enrollment of Baltimore fails of promotion. The failures by subjects are as follows:

Arithmetic—10 to 12 per cent. of children fail—affects all grades. Reading—Failures decrease from 17 per cent. in first grade to 1 per cent. in eighth. Language and Grammar—15 to 17 per cent. in the fifth to seventh grades. History and Geography—about 5 to 6 per cent. in the sixth and seventh grades.

The points of greatest difficulty for colored children occur earlier than for white children by about one grade and the percentages of failures are greater by about 50 per cent.

Total number cared for in special classes in 1920 was 697 white children and 99 colored children. The group "three or more years over age" in *regular classroom* is 1342 white children and 1062 colored children. On the basis of 15 pupils to a class Baltimore should have 200 ungraded rooms. Three per cent. of the total enrollment or 2690 pupils, for physical reasons, could profit by instruction in special rooms, such as "open air," "cardiac," "crippled," and the like.

Recommendations

1. A permanent continuing census system should be installed and maintained by the attendance department.

2. Attendance department should be so maintained in staff and clerical help as to enable it to

   a. Secure prompt enrollment in the fall.
   b. Secure regular attendance.
   c. Maintain attendance to the close of the term.
   d. Grant and follow up in co-ordination with the Department of Labor and Statistics all working certificates for children under sixteen.
   e. Investigate all cases within three days of being reported.

3. Semi-annual advancement should become definite semi-annual promotions for all schools. This will increase the flexibility and adaptibility of the school and help to

   a. Increase the per cent of under age and accelerated pupils
   b. Increase the per cent of normal age and normal progress pupils.
   c. Decrease the large number of over age and retarded pupils.
   d. Decrease the waste involved in repeating an entire year's work instead of half a year, when a pupil fails of promotion.

4. Age-grade and age-progress data should be gathered in such a manner that it will be possible to show the interrelations between the two sets of data.

5. As fast as possible the children in grades having wide ranges of over-age and retarded pupils should be reclassified on the basis of standardized tests and intelligence measures.

6. All children three or more years over age or who have taken three or more years more than normal time to reach their grades, should be cared for in ungraded or special rooms:

a. 150 additional ungraded rooms should be provided.

b. Enrollment in these rooms should not exceed the New York and New Jersey standard of 15 as a maximum.

7. At least fifty special rooms should be immediately established for children in need of special instructional conditions, such as open-air or open-window rooms, rooms for cardiac, crippled, blind, and the like.

8. Children should be placed in ungraded and special rooms on the basis of intelligence tests (group tests checked in doubtful cases by individual tests) and also after careful medical examination.

9. The question of promotions should be made a matter of constant study for every school and for the entire city system. More agreement should be reached on the essentials for each grade and on the quality of work deserving promotion.

Measurements of the Achievements of Public School Pupils

Standard tests were administered to the pupils in the public schools of Baltimore, in an effort to discover what degree of progress is being made in various subjects as pupils are promoted from grade to grade and also to learn by comparison whether the results being obtained in the Baltimore schools are equal to or better than the results being obtained in other cities.

Each test was given in all parts of the city, although it was not possible to visit any one school with more than one or two tests. Each type of school is represented in the results for each test, although the results for each school are not reported separately. Pupils in grades four to eight were examined in each school. The selection of schools to be visited with each test was made without regard to any reported excellences or deficiencies of the school, and it is firmly believed that the results herewith

presented are typical of the general situation in the Baltimore public schools.

Reading

The Thorndike-McCall Reading Scale measures the capacity and power of the pupil in reading and is practically independent of the element of speed.

COMPARATIVE MEDIAN SCORES IN THE THORNDIKE-McCALL READING SCALE BY GRADES

	School Grade				
Place	IV	V	VI	VII	VIII
Average School System	41.8	48.0	53.7	58.3	60.9
Baltimore, White Pupils	43.8	47.8	53.1	58.1	61.2
Baltimore, Colored Pupils	38.4	41.7	45.6	47.0	47.9

The table makes it quite clear that the white pupils of Baltimore can read and understand what they read as well as average pupils elsewhere in the same school grade.

The speed at which pupils solve problems in the four fundamental processes of arithmetic was measured by the Courtis Tests, Series B.

COMPARATIVE MEDIAN SCORES IN COURTIS TESTS SERIES B—ARITHMETIC

	School Grade				
Place	IV	V	VI	VII	VIII
Addition: Average System	4.7	6.0	7.2	8.2	8.8
Baltimore, White Pupils	4.2	5.5	6.2	7.0	8.3
Baltimore, Colored Pupils	1.3	1.7	2.3	3.4	4.1
Subtraction: Average System	5.9	7.5	8.8	10.0	11.2
Baltimore, White Pupils	5.8	8.3	9.9	10.5	11.7
Baltimore, Colored Pupils	1.1	1.5	3.0	4.9	6.5
Multiplication: Average System	4.2	5.6	7.1	8.2	9.3
Baltimore, White Pupils	4.2	5.7	6.8	7.3	8.1
Baltimore, Colored Pupils	.9	1.2	1.9	2.6	3.1
Division: Average System	2.6	4.7	7.1	8.6	9.7
Baltimore, White Pupils	2.6	5.1	6.7	7.6	8.7
Baltimore, Colored Pupils	.6	.8	1.4	2.4	3.2

In a few grades, the pupils of Baltimore do not solve formal problems in arithmetic as rapidly as pupils in the average school system heretofore tested.

English Composition

Approximately ten thousand pupils were asked to spend twenty minutes writing a story on the subject, "The Most Exciting Experience of My Life." These compositions were then rated for quality by trained readers using a standard scale.

COMPARATIVE MEDIAN SCORES BY GRADES ON HILLEGAS ENGLISH COMPOSITION SCALE

	School Grade				
Place	IV	V	VI	VII	VIII
Baltimore, White Pupils	2.59	3.34	3.91	4.77	5.43
St. Paul, Minn.	2.02	3.38	3.54	4.12	4.96
Nassau County, N. Y.	2.76	3.42	3.82	4.18	4.56
Butte, Montana	2.34	2.80	3.41	3.77	4.11
Baltimore, Colored Pupils	2.22	2.85	2.54	4.02	....

Comparisons with other cities show that Baltimore white pupils are, grade for grade, as high or higher than pupils elsewhere in their achievements in English composition. In the higher grades the superiority of the Baltimore results to those in the other schools is really remarkable. Such a showing might be obtained either by better teaching of English composition in Baltimore than is furnished elsewhere or by eliminating from school some of those who write poor compositions or by holding pupils in the lower grades until they are able to make a high showing. If the instruction is really better in Baltimore than elsewhere, then Baltimore pupils should show the same superiority when compared age for age with pupils elsewhere. The facts are as follows:

COMPARATIVE MEDIAN SCORES BY AGES ON HILLEGAS ENGLISH COMPOSITION SCALE

	AGES								
Place	8	9	10	11	12	13	14	15	16
Baltimore, White Pupils	2.50	2.75	3.05	3.45	3.64	4.01	4.30	4.18	5.19
St. Paul, Minn.	...	2.04	2.83	3.50	3.75	4.50	5.02	5.54	5.96
Nassau County, N. Y.	...	2.91	3.10	3.40	3.70	3.97	4.42	...	...
Baltimore, Colored Pupils	...	2.26	2.53	2.06	2.77	2.92	2.95	2.37	...

The fact that this table does not show the same superiority of Baltimore compositions over those written elsewhere suggests that there is probably a tendency in Baltimore to allow only the

more capable students in English to get into the upper grades of the elementary schools.

Handwriting

The quality of the handwriting done by the Baltimore pupils in their English composition test was compared with the quality found in the same grades of other school systems. Baltimore's scores are very favorable.

Spelling

A list of tweny-five words selected from the Buckingham Extension of the Ayres Spelling Scale was used to measure the abilities of Baltimore pupils in spelling. The results of this test in the different grades at Baltimore are as follows:

COMPARATIVE SCORES BY GRADES ON AYRES SPELLING SCALE

	School Grade				
Place	IV	V	VI	VII	VIII
Average School System.........	10.5	12.5	14.5	16.4	18.3
Baltimore, White Pupils........	9.7	12.6	15.2	17.1	18.5
Baltimore, Colored Pupils.......	7.2	10.6	11.3	13.2	16.7

Although the median spelling scores of the white pupils at various grades in Baltimore are equal to the medians of the same grades elsewhere, the older pupils in each grade spell less well than the younger pupils. This may be illustrated by the median scores of pupils of various ages in the sixth grade:

Age...............	10	11	12	13	14	15	16
Score..............	16.1	15.8	15.2	14.5	14.3	13.9	11.5

Similar results, found in reading, in composition, and in the intelligence tests, would seem to indicate that pupils in Baltimore are not being promoted on any very objective evidence of fitness, for the younger children are in classes below their abilities and the older children have been promoted to classes beyond their capacities.

Intelligence Tests

Scale A of the National Intelligence Tests was used to furnish some index of the general intellectual abilities of the pupils in various grades and of various ages at Baltimore. The results by grades are given in the following table:

COMPARATIVE MEDIAN SCORES BY GRADES ON NATIONAL SCALE A

Place	School Grade IV	V	VI	VII	VIII
Baltimore, White Pupils..........	67	84	105	123	139
Washington, D. C.................	63	87	104	118	138
Michigan Cities	59	82	99	113	130
Baltimore, Colored Pupils.........	44	61	84	106	110

From the above table it is quite clear that Baltimore pupils are just as intelligent as pupils in the same grades elsewhere. The following table gives the comparisons by ages rather than by grades:

COMPARATIVE MEDIAN SCORES BY AGES ON NATIONAL SCALE A

Place	Ages 8	9	10	11	12	13	14	15	16
Baltmore, White Pupils..	65	69	83	91	102	111	112	118	123
Washington, D. C........	65	73	82	98	113	119	132	122	130
Michigan Cities	41	56	71	87	95	107	118	114	113
Baltimore, Colored Pupils	..	55	53	71	73	74	78	103	...

It appears that although seventh and eighth grade pupils in Baltimore make higher intelligence scores than pupils of the same grades elsewhere, the 12, 13 and 14 year old pupils in Baltimore are not more able in these tests than pupils in other cities. Pupils in Baltimore are apparently not promoted into the upper grades unless there is a strong probability that they will make a high showing. The unusually high standing of Baltimore pupils in the upper grades is not so much because the pupils are better taught but because they are more effectively retarded by the schools.

Baltimore teachers must think of the school more definitely as a place for instructing pupils and improving their abilities and to consider the school no longer as a place for holding pupils until their abilities reach certain arbitrary standards. It would take much less effort to bring a class "up to grade" in a given test, if it had been found, for example, that the sixth grade was below standard in spelling, than it will take to make the teachers feel strongly the need of giving each pupil a type of work which he can accomplish with profit. Teachers tend quite naturally to feel that those pupils who do the work offered in school are "superior" to those who do not succeed in school, and it will

take a considerable amount of patient supervision to bring them to "lower their standards" and to think of other interests as being just as "noble" and "worthy" as the academic life.

Many more special classes and special schools must be provided for those pupils whose abilities and interests are "different." Pupils should be considered as individuals. Those who have the same interests and abilities should recite and work together for economic administrative reasons, but each pupil should be placed in a class where the work is such as will make him a more efficient and a happier member of the community. The provision of an adequate number of such special classes and schools will do much in the creation of a right attitude among the teachers toward the pupils whose interests are "different."

MEDICAL INSPECTION, INSTRUCTION IN HYGIENE, AND PHYSICAL EDUCATION

A. Medical Inspection

1. The medical inspection of Baltimore children is conducted by the Board of Health through the services of 34 part-time physicians and 39 whole-time nurses.
2. The physicians are Health Wardens whose duties, in addition to the school work, consist in routine ward supervision of communicable disease.
3. The assignment to schools is on the basis of their ward work. This makes for uneven, poorly distributed allotment. Thus Health Warden A inspects 250 children (the lowest) and Health Warden B inspects 1600 children plus the children in St. Elizabeth's (the highest number).
4. The first and fourth grades only are examined in routine. Others, referred by teacher or nurse, are examined also.
5. There is no medical supervision of athletic teams in the elementary or high schools.
6. The examination card provides one-third of its items for minor and parasitic conditions. There is only one item on the card which should require the services of a physician. This is tonsils. Item T. B. also on the card will require medical attention, but the Health Warden does not examine for T. B. on routine.

7. The school nurse is the most valuable part of the present organization for medical inspection in the Baltimore schools.

8. The records of the Department of Health are incomplete, unstandardized, and in need of immediate attention. The eight years previous to 1921, show records for 1912, 1913 and part of 1914. Years 1915, 1916, 1917, 1918, 1919 are without satisfactory statistical data. The 1920 report is not yet available.

9. For the years 1912, 1913, 1914 there is unmistakable evidence of lack of standardization. Thus in 1913 Medical Inspector A in examining 8,068 children diagnosed 122 mentally deficient. All the other medical inspectors (five in all at that time) examined 32,131 children and found only 83 cases.

   Again, Medical Inspector I-J with 108 cases of pediculosis and 827 cases of tonsils records 168 cases of adenitis. Medical Inspector C-D with 1,192 cases of pediculosis and 1,505 cases of tonsils records only 7 cases of adenitis.

Recommendations

1. The Board of Education should be responsible for the medical supervision of the public school children.

   In the development of medical inspection service in the schools, authority was granted at first to Boards of Health. By 1911 over three-fourths of the cities supporting medical inspection show authority vested in the Board of Education.

2. There should be standards set for the examination, for diagnoses, referring of cases, etc. This should be accomplished by a standardization clinic held by the department at the beginning of the school year.

3. General inspection of all children in one week according to plans and forms provided.

4. Use of symptom chart by teachers for referring cases.

5. Medical examination of all elementary and junior high children. Physician to deal with certain selected items. Special examination for all students who are candidates for athletic teams, referred by the teachers, failing in their work, or frequently absent on account of illness.
6. Central clinic where parents may bring children for special examinations, consultations, special tests (psychological, chemical) and treatment of special kind, such as for speech defects, orthopedic deformity, etc.

   Continuance of all the present available avenues of treatment such as family physician, clinics and hospitals, school nurse and home treatments.
7. Adoption so far as possible of the Cincinnati plan for dental clinics.

B. Instruction in Hygiene

1. The training in personal hygiene at the Training School provides too much emphasis on anatomy and physiology and not enough on hygiene; the instruction in school hygiene deals too largely with conditions that lie outside the province of the teacher to change, and neglects such important items as to make posture tests, to actually make vision tests, to actually make hearing tests, to examine teeth and be able to recognize defects, to know the signs and early symptoms of the common defects and diseases of children.
2. The hygiene instruction in the elementary schools is an incidental matter and is treated as such. There is no supervision of the work, and very little interest. An occasional school shows a wide awake modern-minded teacher, developing the hygiene in relation to habits and the problems of boys and girls; in most instances it is a matter of teaching physiology. The great illusion in education is well illustrated by the observation of a lesson in a sixth grade. The teacher was emphasizing the importance of oxygen, but the school program made no provision for outdoor play; the windows were closed and the temperature in the room was 78 degrees Fahrenheit.

3. In the junior high schools, the hygiene instruction shows more uniformity and has more illustrations of good work.
4. Hygiene instruction in the senior high schools is taken up in a regular way. In Eastern, it is taught in connection with biology, but as biology is an elective subject, not all students receive instruction in hygiene. Less is done at Western. There is no instruction in the subject at Polytechnic or Baltimore City College. At the colored high school, hygiene is featured in the general elementary biology course.

Recommendations

1. Supervision of the subject in the elementary grades. Increase in correlation.
2. Change of text in use in the sixth grade. Recitation needs to be vitalized by bringing in outside sources of information. Not a memory subject at all.
3. More use to be made of posters.
4. School nurse to be brought into the teaching.
5. Increase in the activities and work of the Health Crusade.
6. Special teacher in hygiene in the junior and senior high schools.
7. In the high schools, hygiene should be offered as a separate course, in segregated classes by an instructor of the same sex as the class.

C. Physical Education

1. The physical education in the elementary schools consists of 10-minute lessons in formal calisthenic exercises, with emphasis on discipline, response to command, and without any reasonable allowance for play and games.
2. In this regard Baltimore is not abreast of the times. The tendency in physical education today is to provide more play. The first two grades in different syllabi indicate this tendency.

Syllabus	No. of Pages Given to Formal Gymnastics	No. of Pages Given to Play	% Emphasis on Formal Gymnastics	% Emphasis on Play and Games
Michigan	0	50	0	100
California	0	190	0	100
New Jersey	2	37	5	95
Philadelphia	5	20	20	80
Baltimore	28	8	78	22

3. The time devoted to work that would produce physiologic results in the children is insufficient. Too much emphasis is given to postural, disciplinary types of exercises. In 175 lessons observed only 5.8 per cent. of the 1750 minutes observed was given to physiological work; at least 75 per cent. should have been provided.
4. Physical training in the Baltimore schools is not developing an interest in physical activity. The love for physical exercise, the participation in physical exercise, is considered today as one of the essentials for health. In Baltimore the children's natural instinctive impulses to play are being repressed by a system of training that is artificial, unhygienic, and totally unwarranted from any standpoint.
5. The supervision is provided by 13 assistant supervisors who are improperly and incompletely trained and who lack effective methods of supervision. Not one member of the staff is a college graduate holding a college degree.
6. The work at the training school is of a very poor order. There are no locker or dressing room facilities worth consideration, except to be condemned.
7. The Baltimore Syllabus is of very poor quality. Essentially the same lesson is taught to all eight grades. A class of mental defectives was observed in the same lesson given to normal children. The defectives go through the work with as much skill as the normal classes.
8. The work is absolutely lacking in standards. The use of physical efficiency tests has not been utilized, although a physical efficiency contest has been started this past year. About .4 of 1 per cent. of the children were interested enough to compete in the contest.
9. The work in the junior and senior high schools is pervaded by the same spirit and reflects the same goals as

given in the syllabus for the elementary schools. Formal exercises, no provision for medical supervision, no bathing, inadequate opportunity for play, for outdoor activities—these conditions persist with all the coloring of Jahn's German Gymnastics and Ling's Swedish Gymnastics.

10. Polytechnic Institute provides no physical training at all. Athletic teams coached by teachers of academic or professional subjects compete with teams from City College, coached in similar fashion. No "Athletics for all" program or policy.

Recommendations

1. That a director and an adequate staff for medical supervision, instruction in hygiene, and physical education be provided.
   (a) Elementary school—Twenty minutes daily in physical education of a modern kind—organized recess daily—sixty minutes play and recreation after school, voluntary at present, to be required as facilities warrant.
   (b) Junior high school—Three 45 minute periods a week in physical education of a modern kind—two 60-minute periods a week on alternate days with above for after-school games and athletics, voluntary at present, to be extended as facilities warrant.
   (c) Senior High School—Two 45-minute periods a week in physical education of a modern kind—three 60-minute periods a week on alternate days with above, in games, hikes and athletics, voluntary at present, to be extended as facilities warrant.

4. Cooperation with Public Athletic League and Children's Playground Association and Maryland Scholastic Athletic Association.

SECONDARY SCHOOLS

1. There are in Baltimore five high schools and nine "preparatory" and junior high schools, but no secondary school sys-

tem. The high schools have developed largely as individual institutions, their policies determined chiefly by the respective principals. The "preparatory" schools instituted by one superintendent with a definite idea, have been continued by another without adquate provision or promotion. The junior high schools were begun by official mandate, without preparation of teachers, principals, or plant, and have developed as well as could be expected without a coordinating policy and active supervision from the superintendent's office.

Recommended—That a comprehensive secondary school system be devised by the superintendents, the principals, and heads of departments, representing the entire teaching corps.

2. The boys' high schools are designed to satisfy the needs of only a small fraction of the youth of Baltimore. The Polytechnic Institute prepares boys for engineering and higher schools; the City College prepares for academic colleges and commercial work. The girls' schools are more liberal in their offerings, but still fall short of being fully comprehensive. The Colored High School imperfectly exemplifies its program, which is too academic for its clientele. As a result, Baltimore ranks next to the last among the 41 largest cities in the proportion of its population in high schools, and 38 in the ratio of high school pupils to the total school enrollment.

Recommended—That provision be made in the secondary school system in junior and senior high schools for all normal boys and girls from 12 to 18 years of age.

3. The fact that the schools are not now adapted to the pupils who enter is manifest from the data on failure, retardation, and elimination.

Of 442 pupils who entered Baltimore Polytechnic Institute in 1914, 57 per cent. completed the first semester's work on time; 71 per cent. finally completed it. Something less than a fourth ultimately graduated, and of these about one-half proceeded to engineering colleges where they received advanced standing of one year or more. Two years after entrance, only 29 per cent. of the class were in regular standing; 12 per cent. were retarded one semester; 7 per cent., one year; 4 per cent., a year and a half; and 1 per cent., two years. The other 47 per cent. had dropped

out. At City College 36 per cent. of the entering class has been eliminated at the end of two years.

Any institution that fails, retards, and throws away so large a proportion of its raw material, cannot be considered successful in its efforts to turn out a finished product of value to the city.

Recommended—That the work of the several high schools be adapted to the needs of all normal and industrious adolescents, whatever their preparation, capacities, or aptitudes.

4. The purposes of the high schools, as presented in the annual Register and as stated by the principals, are lacking in harmony and, for the boys at least, are not reflective of a consideration of the needs of the youth of Baltimore. Some of the statements have stood for years with but slight verbal changes.

Recommended—That after a cooperative study of the needs of the adolescents of Baltimore by the teachers and officials in charge, there be made a new set of statements of purpose, so formulated as to be effective in the devising of curricula and courses of study, in adapting instruction, and in enlarging the scope of education to include the extra-curricular activities of boys and girls.

5. Just before the close of schools eighth grade pupils are summoned to the high schools, where they are told of the offerings, given printed programs of study, and requested to advise with their parents as to which curriculum they will elect if they enter the high schools in the fall.

Recommended—That a systematic and general effort be made, not merely in May but from time to time during the year, to interest grammar grade children in higher education, to convince them of its attractiveness and worth, to induce in them a desire to enter high school, and to guide them toward work that promises the highest return in value for the individual and to the city.

6. The junior high schools are too young as yet to be fully evaluated. Good features were found in all of them, but no adequate conception of their purposes or possibilities is general among the principals, teachers, and parents. Being imposed

without preparation, these schools seem to have done as well as could be expected.

Recommended—That institutes of principals and teachers be convened to determine the purposes, policies, and programs of junior high schools; that each one be adapted to the neighborhood in which it is situated; and that each school, when provided with able and skilled teachers, undertake to develop the details of some one course of study or activity, these later to be tried by teachers in the other schools.

7. No facts have been more convincingly shown by the science of education than that pupils vary amazingly in their interests, aptitudes, and abilities, that these variations are continuous from low to high, that by no means can pupils all be made alike, and that in consequence suitable provisions should be made for different groups.

Recommended—That provisions be made in all the high schools for individual differences in pupils: for interests and aptitudes by curricula and courses; for abilities, by slow moving and accelerant groups.

8. The curricula of the several high schools are in the largest measure influenced by traditions. That in this matter Baltimore schools are no worse than hundreds of others is no excuse for the continuance of required subject-matter that causes a seventh of the pupils to fail, that eliminates in one school three-fourths of all entrants, and that even when mastered does not make a profitable return to the city on its investment.

Recommended—That the principals and heads of departments, representing the entire body of teachers, on such modification as they desire to make of the curriculum principles presented, construct new curricula for a secondary school system in Baltimore, and that teachers of the several subject groups then cooperatively develop for the approval of the entire corps new courses of study consonant with accepted principles.

9. Observations were made of full periods of teaching by 103 teachers in the five high schools, and records kept of a number of details of instruction. As is the case in every large city, there is in Baltimore some excellent, much conventional or commonplace, and some very poor teaching. In personality the high

school teachers of Baltimore impress the field workers as ranking high. In loyalty to their work they are typical, most of them rendering to the tasks which they undertake a devotion that would be more admired were it not so common among school teachers. The esprit de corps has fallen somewhat during the past two years because of the unsatisfactory salary schedule and of professional uncertainty.

There is great variation in the size of pupil-hour loads among teachers, even among those working in the same department, and, with and without apparent reason, there is considerable variation among subjects. Freshmen are usually in classes considerably larger than those to which the seniors are assigned. To the last statement Baltimore Polytechnic Institute is a conspicuous exception. The sizes of the classes are in the great majority of cases above, often much above, the standards set by such bodies as the North Central Association of Colleges and Secondary Schools; and the average pupil-hour load is too heavy for teachers to give the personal attention that pupils need and deserve.

Recommended — That young teachers who do not give marked promise of growth be promptly removed; that the school authorities, including the Board of School Commissioners, give careful attention to the conserving and improving of the esprit de corps among the teachers; that the size of high school classes be reduced to an average of approximately twenty-five, with no class larger than 30 pupils, and the most immature pupils being assigned to the smaller sections; that the pupil-hour load of no teacher be permitted to exceed 800 each week, an average of 750 being sought; that unfit teachers who for good reasons cannot be removed be given assignments in the school system where they can contribute most and do the least harm; and that better provisions be made for directing growth in service.

10. **Recommended**—That principals be freed from all possible mechanical routine and expected to spend the major part of their time in attempting to improve the educational worth of the school. If a principal is especially interested in problems of administration, he should be supplemented by a full-time assistant principal who devotes himself to problems of education.

11. There are in the five high schools thirty heads of departments, but they have never been assigned definite authority and work nor have they devised for themselves a common program. They have widely varying conceptions of their functions. In the Baltimore City College there are several heads who apparently do nothing in return for the concomitant extra salary. The other heads of departments contribute variously according to their conceptions of their positions, always limited by the necessity of spending four or more periods a day in other duties. More than a third of the heads in three schools and practically all in the other two were found to be doing practically nothing toward the improvement of their departments.

Recommended—That heads of departments be assigned definite powers and responsibility for improving teachers in service, and that for this end they receive necessary relief from other duties.

12. In the boys' high schools and in the school for colored pupils practically nothing has been done to use extra-curricular activities for enriching education. In the girls' schools a beginning has been made.

Recommended—That provisions be made whereby extra-curricular activities of the schools—clubs, assemblies, publications, and the like—be seriously used as a part of the educational program, with teachers assigned to them as a part of their regular duties.

13. There has been a negligible amount of leadership for the secondary schools from the superintendent's office, and no definite policy.

Recommended—That the assistant superintendent in charge of secondary schools be relieved of all possible routine duties and assigned the responsibility of working out such a program as previously suggested, of stimulating and directing his subordinates toward the reorganization of subject matter and the improvement of teaching.

THE CURRICULUM OF THE ELEMENTARY SCHOOLS OF BALTIMORE

1. **As represented by documentary evidence.** There is no complete, organized, published curriculum. Fragmentary courses of study and outlines were found as follows:

   a. Courses published in 1908 in geography, history, nature study, and sewing.

   b. Revisions of earlier courses, or new courses, published more recently in arithmetic, English, drawing, manual training, physical training, and hygiene and physiology.

   c. Printed synopses or summaries of earlier courses now out of print to serve temporarily in geography, history, and arithmetic.

   d. "Units" from the two Training Schools, in type-written form, issued through the last five years, supplementing the earlier printed courses of study.

   e. The Baltimore County Course of Study, still used quite fully in the recently annexed schools, and used as a reference by a very few of the city teachers.

   f. Text books or sets of manuals. The Hollis Dann Music Series represents the course in music, and the Norman Penmanship Series that of writing.

   g. A pamphlet Report of Committees appointed by the Teachers' Association recommending certain changes in the curriculum. The changes recommended seem not to have been authorized by the Board of Education.

Difficulty was experienced in securing a full set of these documents, and a condition more chaotic could not well be imagined.

2. **As found in operation.** Visits, and detailed inquiries and observations were made in 52 schools, carefully selected to represent typically different environing conditions over the entire city. These included one-room and other schools in the "Annex," suburban schools, and schools in the most thickly populated districts in the city. Both schools for white children and for colored children were included.

Relative to this particular problem, there is not sufficient difference between the schools for white and colored children to

make it necessary to differentiate in findings and recommendations.

In some schools, teachers are left quite free to make their own selections of material and their programs, while in others the principal dictates the rigorous enforcement of his own interpretation of the curriculum. In some schools there is fine cooperation and democracy.

While there is much variability in practice, yet fundamentally there is a degree of uniformity making transfers of pupils relatively easy. This indicates that the curriculum as actually operative is largely in the minds of the principals and teachers, centering about the standards established by training and tradition.

The General Conditions

While all degrees of quality from high excellence to relative poverty are found in the selection and organization of material, central tendencies as found are as follows:

1. **Points of emphasis and subordination.** There is marked over-emphasis upon the processes of arithmetic, spelling, the technical phases of drawing, manual training, sewing, and physical education as compared with the thought phases of these subjects and with the other subjects of study. The median time given to arithmetic is from 150 minutes a week in the first grade to 285 in the sixth. For mathematics, the median time is 330 minutes a week in the eighth grade. In one school, 600 minutes a week are given to mathematics in the seventh and eighth grades. In spelling, the median time allotment is 60 minutes a week in the first grade, 100 in the fourth, and 60 in the sixth. But there are some schools giving 30 minutes a day to spelling in the sixth grade, and, in one second grade, pupils were given eight new words a day for four days a week with one day for review. While these cases are extreme, there are many schools in which the emphasis upon mechanical processes is very great.

On the other hand, the content subjects, geography, history, literature, science, and the thought aspects of arithmetic and the practical arts as these relate to usage and interpretation, are relatively subordinated. As compared with the time allotments in 50 cities, quoted by Strayer and Engelhardt in "The Classroom Teacher" (page 215), Baltimore gives about 31 per cent.

more time to arithmetic than the median allotment for these 50 cities, and about 61 per cent. less to history and geography combined, basing the comparisons upon approximate values for Baltimore.

Throughout the curriculum as found working, the tool subjects are strongly emphasized, while the subjects representing thought content and activities related to the practical, work-a-day world are relatively neglected.

2. **Facilities and equipment.** While there is great variability in the amount and kind of teaching equipment and materials, the schools generally are not well supplied. Many schools are entirely without practical arts materials at the present time.

3. **Uses of environment.** Although Baltimore is rich in industrial, geographical, institutional, historic, and art activities, materials, and conditions, most schools make very little use of these. An exceptional school or teacher here and there illustrates possibilities by efficient use of these elements of environment, but most schools and teachers make very little use of them.

Consideration of the Respective School Subjects

An analysis has been made of the status of each of the school subjects on the basis of both the documentary statements of courses and as revealed by direct evidence in the school. Specific evaluations and detailed suggestions for improvement have been made for each study. A brief of these detailed findings and constructive suggestions is not possible within the limits of this abstract. The complete report affords a basis for a program of curriculum revision.

Recommendations

1. **To meet immediate needs.** It is recommended that a representative committee of teachers, principals, supervisors, and selected members of the training school faculties be immediately chosen to codify and organize the material now constituting the best elements in the courses of study, making such additions as are necessary, into a temporary curriculum to serve during the interval necessary for making a more fundamental revision. This committee should bring together the fragmentary documentary material now serving as a basis of work, modify it to include the best present practices in the schools of Baltimore not

included in the printed courses, make such desirable modifications in the whole as can be done in a short time without embarrassing the present teachers in the schools, and unify this into one outlined curriculum. Work should be so organized and planned that the results may be completed and made available for use at the opening of the schools in September, 1921. Sufficient flexibility in the work should be provided to permit readily of the adaptation of the material to the needs of the various schools of the city in terms of their varying conditions as to size, population, and environment. It must be remembered that the range of conditions in Baltimore is very wide, including one-teacher schools, suburban graded schools, and schools in districts highly congested and representing many types of population, both native and foreign born.

As it requires from one to three years to develop the more satisfactory revision of the curriculum, it will probably be desirable to print this temporary curriculum in a quantity sufficient to supply every Baltimore teacher with a copy for at least two years.

2. **To make a more fundamental revision.** It is recommended that a representative committee with an appropriate number of sub-committees be appointed to make a thoroughgoing study and revision of the curriculum, and to prepare the results of its findings for adoption and publication by the Board of Education. While such committees will necessarily have to be representative, and should represent every school group in Baltimore, the interest of every teacher in the school system should be enlisted in the enterprise. Every teacher should be encouraged to study the problem and to contribute a share in its solution. It is the teachers who have to apply the curriculum, and the larger their share in its development, the larger their feeling that it is their own work, the more efficiently will they carry forward its provisions in practice.

As the new curriculum develops, its content should gradually take the place of the temporary curriculum. Any marked modifications in content and time allotment should be tested out before they are recommended for general adoption. Even in units of work proving most satisfactory, a certain degree of flexibility should be provided. While the larger body of content in the elementary school will remain permanent, no curriculum

should be made so rigid that it will not permit of adaptation and improvement as occasion makes this possible. As we live in a progressive world, the curriculum should reflect those changes which are progressive.

Although the curriculum developed should be a curriculum for the whole city of Baltimore, it should be fluid enough and flexible enough to make its adaptation and adjustment to the needs of any individual school in Baltimore easy and efficient.

In this revision, the suggestions made relative to the individual school subjects in the more complete report should be considered. The problems of special classes, of equipment and supplies, of mental tests, of measures of achievement, of the use of the environment, of grade norms and promotion, and of supervisory needs should all receive consideration as they relate to the problem of the curriculum.

By adopting these two phases of policy in revising the curriculum, it is believed that both immediate improvement and a progressive plan of permanent improvement may be achieved without embarrassment of teachers or loss in their efficiency. The recommendations are based upon the belief that growth must be deliberate, that it must be experinced by every member of the teaching and supervisory staff, and that it must begin with conditions as they are.

KINDERGARTENS

Importance of the Kindergarten as a Unit in a Public School System

Some of the main objectives in kindergarten education are the development of right personal habits, learning to work and play together, training in habits of self-reliance, initiative, and good thinking. The kindergarten aims to give the children a wealth of valuable first-hand experiences which shall furnish the mind with ideas and concepts upon which may be based the education in symbols which begins in primary school. Good habits of work are built up through various concrete activities. The kindergarten represents not only a highly impressionable, but an equally productive period in the child's life.

Development and Present Status in Baltimore

In Baltimore in 1911 there were 21 kindergartens. In 1921 there are only 36 and 6 of these were opened as recently as May, 1920. This shows a very slow increase during the last decade. At present there are 87 schools having first grades which are without kindergartens, and in the schools having kindergartens there is great disparity in the numbers enrolled in these classes as compared with the enrollment in first grades. There is a total enrollment in the kindergartens of 1954 pupils and in the first grades 5941. This is in the ratio of less than 1 to 3. Children are admitted to the kindergarten at the age of 5 years. There are probably about as many 5-year-old children as 6-year-olds at any given time in any given neighborhood. Yet this disparity in numbers enrolled is typical, as shown in four different schools.

Enrolled in Kindergarten............	51	43	44	48
Enrolled in first grade..............	266	210	254	293

It cannot be said that there is any strong demand on the part of the general public for more kindergartens or that long waiting lists are common. This passive or indifferent attitude on the part of the public is not found in other cities where kindergartens have been long established and it is probably due partly to a general lack of understanding and partly to the poor and unattractive school surroundings and facilities almost universally found.

Educational Materials

In the kindergarten curriculum materials of various kinds occupy an important place. Pupils have not reached a stage where books can be of great value. Their training must come from first-hand experience from experimentation with constructional and art material, and their thinking must be largely in the concrete situations which arise in their attempts to carry out their plans and schemes of work and play.

There have been vast changes in the last fifteen years in the nature of materials deemed desirable for the education of young children, and the equipment of Baltimore kindergartens only faintly suggests the sweeping changes which are now almost universal elsewhere. The limited closet space is crowded with antiquated material which is useless, while there is almost a complete lack of the newer materials, such as large floor blocks

and physical apparatus. Even such absolutely essential materials as clay, sand, scissors, crayons, paints and brushes are either entirely lacking or supplied in quite inadequate amount. In many cases teachers are themselves furnishing some of the indispensable materials and tools rather than suffer the handicap of their lack.

It is recommended that there be an entire revision of the order list worked out by the co-operation of the supervisor and teachers. The useless material should be disposed of and a better type supplied in sufficient quantity to render possible efficient work.

Curriculum

There is no prescribed outline or course of study. The work is planned by the directors and varies in value according to the training and viewpoint of the individual. The usual curriculum subjects, industrial arts, fine arts, construction, literature, oral language, dramatic play, games, music and nature study, are found in all programs with varying emphasis. It is in the planning and presenting of a modern course of study that the greatest help from the supervisor is needed. Standards should be defined without imposing uniformity of curriculum.

Methods of Instruction

The most common procedure is to conduct various activities in large groups under the direct control of the teacher, but numerous instances were noted where teachers were attempting to work with smaller groups and definitely training the children in valuable habits of self-direction and initiative. This is in line with progressive work elsewhere, but most of the teachers are in need of further expert guidance and help in order to become proficient in using this method.

Relation of Kindergarten to First Grade

Statements of supervisor and teachers, examination of curriculum, and observation, all show that the work of the first grade is not built definitely upon that of the kindergarten. Many first grade teachers find points to commend in the kindergarten-trained child, but their opinion on the whole is not favorable. This attitude is almost always found where primary work, as in Baltimore, is extremely formal, where activities similar to

those in the kindergarten are entirely absent in first grade, and where the primary classes are very large. Enrollment in first grade classes often reaches 45 to 60 in Baltimore. Under these conditions children trained to habits of initiative, independence and earnest following of active pursuits will not fit into the formal scheme.

This lack of co-ordination can be obviated to great extent by enrichment of primary curriculum, providing opportunity for greater freedom of the right sort and bringing teachers of both departments together for study of common problems.

HOME ECONOMICS

Recommendations

1. That a well trained supervisor of all the home economics studies be appointed as soon as possible.

2. Recommended that equipment, space, and materials be improved in order that teachers may do better work.

3. That the teaching objective be defined and work so organized as to be of social value to the group receiving instruction.

4. (a) **In elementary schools.** 1. Industrial arts work, including certain phases of the home economics, should form a basis for future work. This is not a subject added to the curriculum provided the subjects are correlated. The standards of adults should not be imposed upon children. (b) **In junior high schools.** 1. Each teacher cooperating with the supervisor should adapt the course of study to the needs of the group and individuals as far as possible. (c) **In senior high schools.** Home economics studies should be offered to meet the needs of all the girls in high school. These needs are:

   1. For general self-improvement, which may be met through the course of the ninth grade and in many of the units offered in the senior high school.
   2. For home-making education, which may be secured from the full home-making course here recommended.
   3. For industrial vocational insight and training, which may be received in the more intensive and advanced courses.

5. The school lunch should be under the immediate direction of an expert dietitian as in other large cities. She should cooperate with the home economics supervisor in making the lunch hour a real part of the school program, with educational features.

6. A study of the home conditions of the girls will make possible the adaptation of the home economics studies to meet more adequately their home and vocational needs.

Mothers as well as girls in school need home-making instruction. This must be given through the public schools. For foreign women home teaching is recommended.

Vocational Education

The scope of evening, continuation, part-time, and day vocational schools in the field of industry, commerce, and the home is so great and the possibilities of making contacts with business men and commercial establishments so numerous that it is essential for the success of the field represented that Baltimore should provide a director or an Assistant Superintendent of Schools who will have charge of vocational activities.

The Vocational Activities should include an Industrial Institute; evening vocational schools; continuation and part-time schools, vocational guidance, manual training and household arts, as given in the elementary and secondary schools, and vocational experience in the junior high school.

Industrial and Trade Education

A comprehensive plan for industrial and trade education in Baltimore should take into consideration the training organizations in the large industries and establishments, first, by fitting youth through day school instruction for entrance upon advanced apprenticeship; second, by cooperative part-time training where the public school assumes full responsibility for related work and the shop and store full responsibility for practical work; third, by establishing advanced technical evening courses in lines not touched by the plants themselves.

A Central Trade Institute should be organized to teach: (a) Printing and the related trades; (b) Mechanical trades (inclusive of machinists trade and other crafts of metallurgical plants,

railroad shops and steam engine practice); (c) Building and woodworking trades; (d) Ship building trades; (e) Automobile trades, nautical trades (School ship); (f) Trades and occupations open to women and girls; (g) Truck gardening.

Corresponding provisions should be made for the colored race in a colored industrial school where there is instruction in carpentry, stone and brick masonry, plastering, painting, paper hanging, plumbing, gas and pipe fittings, chauffeuring, tailoring, cleaning and renovating, shoe cobbling, and truck gardening.

Women and girls' courses should be organized in the Institute in order to give recognition to the large number of females employed in the needle trades, hair dressing and the like.

Part-Time and Continuation Schools

This report recommends that these schools follow definitely the plans of the Smith-Hughes Act and conform to the theory and practice as laid down in the national law.

Commercial Education

It is recommended that a director of commercial education be appointed. No other field of education is in greater need of expert guidance. Such a director is needed to coordinate the work in the commercial department in the day high schools, the evening high schools, and the continuation schools.

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